

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 58-098917

(43)Date of publication of application : 13.06.1983

(51)Int.CI H01L 21/205
H01L 21/263

(21)Application number : 56-197858 (71)Applicant : SEIKO EPSON CORP

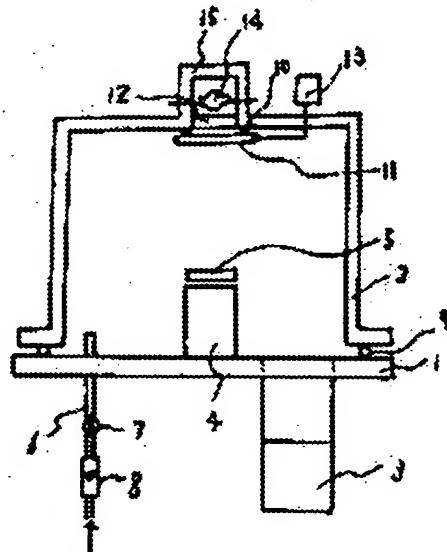
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(54) ATOMIC LAYER EPITAXIAL DEVICE

(57)Abstract:

PURPOSE: To permit a rapid epitaxial growth at low temperature by providing a lamp which illuminates the specimen surface.

CONSTITUTION: A vacuum vessel is constituted by a base plate 1, bell-jar 2 and a vacuum pump 3. A specimen holder 4 for holding a specimen 5 such as a wafer is disposed in the vacuum vessel. A gaseous compound such as SiCl containing atoms (Si) for the epitaxial growth is introduced into the vacuum vessel through a gas inlet section 6. A lamp 14 of a lamp section is adapted to illuminate at least the surface of the specimen 5. The lamp section is composed of the constituents such as a light shutter 11, quartz window 12, shutter driving motor 13, mercury lamp 14 and a lamp house 15. According to this arrangement, the epitaxial growth is performed in two steps of adsorption of gas by the base plate and decomposition of the compound by the application of light.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]